

REMARKS

Applicants cancel claims 1-4. Claims 5-13 remain pending in the application.

Applicants amend claims 5-9 for clarification. No new matter has been added.

Claims 1, 5, 9, and 11 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,611,872 to McCanne; and claims 2-4, 6-8, 10, and 12-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McCanne in view of U.S. Patent No. 6,438,612 to Ylonen et al. Applicants cancel claims 1-4 and amend claims 5-9 in a good faith effort to clarify the invention as distinguished from the cited references, and respectfully traverse the rejections.

Although McCanne describes a packet multicast transmission, the cited portions thereof do not include any disclosure of transmitting control packets for constructing virtual private networks (VPN). Correspondingly, McCanne only describes encapsulation with native multicast packets, and, thus, fails to disclose the claim features of relaying apparatuses respectively making virtual links (IP tunnels) with multicast addresses contained in the aforementioned control packets for constructing VPNs. Furthermore, McCanne does not disclose the claimed features of a plurality of virtual relaying structures independently included in the relaying apparatuses and respectively associated with multicast addresses. Thus, McCanne only describes transmitting multicast addresses of packets in an overlay network in association with native addresses by hash, and does not disclose the claimed features of relaying apparatuses transmitting packets for VPNs through virtual links established between the virtual relaying structures respectively corresponding to the VPNs.

In other words, McCanne, as cited and relied upon by the Examiner, does not disclose,

“[a] virtual private network construction system for a
public data communication network comprising:

first relaying apparatuses generating and multicasting control packets each of which contains a multicast address for constructing a virtual private network, and

second relaying apparatuses establishing virtual links to the first relaying apparatuses which are transmitting sources of the control packets upon receipt thereof and for returning reply packets through the virtual links,

whereby the virtual links are established between all pairs of virtual relaying structures included and *independently operable per virtual private network* in the first and the second relaying apparatuses to construct the virtual private networks that are preliminarily associated with the virtual relaying structures provided with receiving virtual interfaces and belonging to a multicast address group represented by the multicast address,” as recited in claim 5. (Emphasis added)

Advantageously, the claimed invention provides for using independent address spaces for VPNs, thus enabling overlapped addresses over different networks to be used, whereas the technique described in McCanne cannot use the same address over different overlay networks having different multicast addresses.

Accordingly, Applicants respectfully submit that claim 5 is patentable over McCanne for at least the foregoing reasons. Claim 9 incorporates features that correspond to those of claim 5 cited above, and is, therefore, together with claim 11 dependent therefrom, patentable over McCanne for at least the same reasons. The Examiner relied upon Ylonen et al. to specifically address the additional features recited in the dependent claims 6-8, 10, and 12-13. As such, the addition of this reference would still have failed to cure the above-described deficiencies of McCanne, even assuming, arguendo, that such an addition would have been obvious to one skilled in the art at the time the claimed invention was made. Accordingly, Applicants respectfully submit that claims 6-8, 10, and 12-13, which depend from claims 5 and 9, respectively, are patentable over the cited references for at least the above-stated reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should

consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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